BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY

A Historical and Critical Review of Mathematical Science

EDITED BY

F. N. COLE D. E. SMITH VIRGIL SNYDER
ALEXANDER ZIWET FRANK MORLEY
J. W. YOUNG W. B. FORD

VOL. XV

October 1908 to July 1909

PUBLISHED FOR THE SOCIETY BY
THE MACMILLAN COMPANY
Lancaster, Pa., and New York
1909

VOLUME XV., NUMBER 1

OCTOBER, 1908

Whole No. 171

CONTENTS

	PAGE
Construction of Plane Curves of Given Order and Genus, Having Distinct Double Points. By Professor VIRGIL SNYDER	1
On Periodic Linear Substitutions Whose Coefficients are Integers. By DR. ARTHUR RANUM	4
Even Multiply Perfect Numbers of Five Different Prime Factors. By Professor R. D. CARMICHAEL	7
The Fourth International Congress of Mathematicians: Sectional Meetings. By DR. C. L. E. MOORE	8
Notes	43
New Publications	51

VOLUME XV., NUMBER 2

NOVEMBER, 1908

Whole No. 172

CONTENTS

	PAGE
The Fifteenth Summer Meeting of the American Mathematical Society. By Professor F. N. COLE	57
Answer to a Question Raised by Cayley as regards a Property of Abstract Groups. By Professor G. A. MILLER	72
Note on the Theorem of Generalized Fourier's Constants. By Professor W. D. A. WESTFALL	76
On the Logical Basis of Grassmann's Extensive Algebra. By Mr. A. R. SCHWEITZER	79
General Algebraic Solutions in the Logic of Classes. By Professor L. M. HOSKINS	82
A General Diagrammatic Method of Representing Propositions and Inference in the Logic of Classes. By Professor L. M. HOSKINS	84
Heinrich Maschke: His Life and Work. By Professor OSKAR BOLZA	85
Notes	95
New Publications	101

VOLUME XV., NUMBER 3

DECEMBER, 1908

Whole No. 173

CONTENTS

PAGE

The September Meeting of the San Francisco Section. By Professor W. A. MANNING - - - - - - 105

Note on Statistical Mechanics. By Professor E. B. WILSON 107

On Certain Constants Analogous to Fourier's Constants. By Dr. C. N. MOORE - - - - - - - - - 116

The Cologne Meeting of the Deutsche Mathematiker-Vereinigung. By Professor R. G. D. RICHARDSON - - - 117

Goursat's Cours d'Analyse. Professor W. F. OSGOOD - 120

Shorter Notices - - - - - - - - - - 127

Correction - - - - - - - - - - - 145

Notes - - - - - - - - - - - 145

New Publications - - - - - - - - - 151

VOLUME XV., NUMBER 4

JANUARY, 1909

Whole No. 174

CONTENTS

PAGE

The October Meeting of the American Mathematical Society. By Professor F. N. COLE - - - - - - - 157

On the Groups Generated by two Operators Satisfying the Condition $s_1 s_2 = s_2^{-2} s_1^{-2}$. By Professor G. A. MILLER - 162

The Teaching of Mechanics. By Professor E. W. BROWN - 165

Economics. By Professor E. B. WILSON. - - - - 169

Shorter Notices - - - - - - - - - - 186

Notes - - - - - - - - - - - 198

New Publications - - - - - - - - - 202

VOLUME XV., NUMBER 5

FEBRUARY, 1909

Whole No 175

CONTENTS

PAGE

The Second Regular Meeting of the Southwestern Section. By Professor O. D. KELLOGG - - - - - - 207

Remarks Concerning the Second Variation for Isoperimetric Problems. By Professor OSKAR BOLZA - - - - 213

Notes on the Simplex Theory of Numbers. By Professor R. D. CARMICHAEL - - - - - - - - - - 217

The Solution of Boundary Problems of Linear Differential Equations of Odd Order. By Professor W. D. A. WESTFALL - - - - - - - - - - - - 223

A Class of Functions Having a Peculiar Discontinuity. By Professor W. D. A. WESTFALL - - - - - - 225

On Certain Determinants Connected with a Problem in Celestial Mechanics. By Mr. H. E. BUCHANAN - - 227

Sylvester's Mathematical Papers. By Prof. L. E. DICKSON 232

Hilton's Finite Groups. By Dr. ARTHUR RANUM - - 239

Shorter Notices - - - - - - - - - - 244

Notes - - - - - - - - - - - 264

New Publications - - - - - - - - - 269

VOLUME XV., NUMBER 6

MARCH, 1909

Whole No. 176

CONTENTS

PAGE

The Fifteenth Annual Meeting of the American Mathematical Society. By Professor F. N. COLE - - 275

The Winter Meeting of the Chicago Section. By Professor H. E. SLAUGHT - - - - - - - - - 293

The Sixtieth Meeting of the American Association for the Advancement of Science. By Professor G. A. MILLER 303

Some Surfaces Having a Family of Helices as one Set of Lines of Curvature. By Miss EVA M. SMITH - - 309

Note on Enriques's Review of the Foundations of Geometry. By Mr. A. R. SCHWEITZER - - - - - 314

Notes - - - - - - - - - - - 316

New Publications - - - - - - - - - - 319

VOLUME XV., NUMBER 7

APRIL, 1909

Whole No. 177

CONTENTS

PAGE

The February Meeting of the American Mathematical Society. By Professor F. N. COLE - - - - - - - 323

Bézout's Theory of Resultants and its Influence on Geometry (Presidential Address). By Professor H. S. WHITE - 325

On the Representation of Numbers by Modular Forms. By Professor L. E. DICKSON - - - - - - - 338

Note on Lüroth's Type of Plane Quartic Curves. By Professor H. S. WHITE and Miss K. G. MILLER - - 347

Cantor's History of Mathematics. By Professor D. E. SMITH 352

Shorter Notices - - - - - - - - - 357

Notes - - - - - - - - - - - 365

New Publications - - - - - - - - - 368

VOLUME XV., NUMBER 8

MAY, 1909

Whole No. 178

CONTENTS

PAGE

The February Meeting of the San Francisco Section. By Professor W. A. MANNING - - - - - - 371

The Construction of a Space Field of Extremals. By DR. E. G. BILL - - - - - - - - - - 374

The Second Variation of a Definite Integral. By DR. A. L. UNDERHILL - - - - - - - - - - 379

A Simpler Proof of Lie's Theorem for Ordinary Differential Equations. By Professor L. D. AMES - - - 384

Heath's Euclid. By Professor D. E. SMITH - - - 386

Shorter Notices - - - - - - - - - - 392

Notes - - - - - - - - - - - 410

New Publications - - - - - - - - - 416

VOLUME XV., NUMBER 9

JUNE, 1909

Whole No. 179

CONTENTS

PAGE

The April Meeting of the American Mathematical Society. By Professor F. N. COLE - - - - - - - - 419
April Meeting of the Chicago Section. By Professor H. E. SLAUGHT - - - - - - - - - - - 425
A Set of Criteria for the Summability of Divergent Series. By Professor W. B. FORD - - - - - - - 439
On Fredholm's Equation. By Professor PAUL SAUREL - 445
The Chicago Symposium on Mathematics for Engineering Students. By Professor H. W. TYLER - - - 450
Osgood's Calculus. By Professor C. N. HASKINS - - 457
Shorter Notices - - - - - - - - - - - - 463
Notes - - - - - - - - - - - - - 468
New Publications - - - - - - - - - 471

VOLUME XV., NUMBER 10

JULY, 1909

Whole No. 180

CONTENTS

PAGE

Tautochrones and Brachistochrones. By Professor EDWARD KASNER - - - - - - - - - - - 475
Degenerate Pencils of Quadrics Connected with $\Gamma^{n+2}_{n+1,n}$ Configurations. By Dr. W. B. CARVER - - - - - 483
On the Use of the n-Fold Riemann Spaces in Applied Mathematics. By Professor JAMES MCMAHON - - - 486
Mathematical Appointments in Colleges and Universities. By Professor E. J. WILCZYNSKI - - - - - - 492
Picard's Algebraic Functions of Two Variables. By Professor J. I. HUTCHINSON - - - - - - - 495
Shorter Notices - - - - - - - - - - - 504
Correction . - - - - - - - - - - - - 515
Notes - - - - - - - - - - - - - 515
New Publications - - - - - - - - - - 520
Eighteenth Annual List of Published Papers - - - 523
Index of Volume - - - - - - - - - 530